USGS science for a changing world

Earthquake Shaking **Green** Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

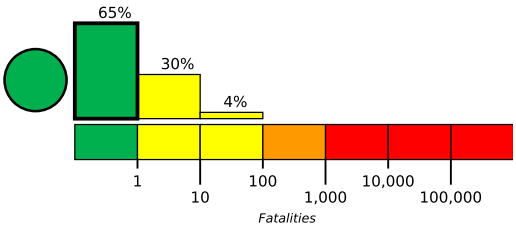
# M 5.5, 18km WSW of Araya, Venezuela

Origin Time: 2019-09-09 18:05:17 UTC (Mon 14:05:17 local)
Location: 10.5048° N 64.4122° W Depth: 10.0 km

**PAGER Version 4**

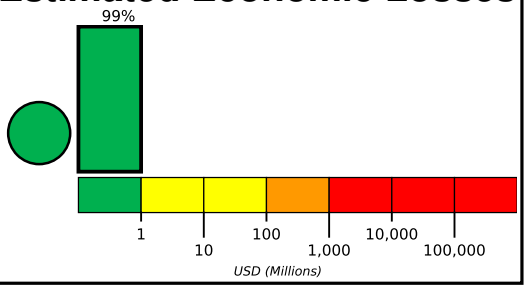
Created: 1 day, 0 hours after earthquake

## Estimated Fatalities




Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

## Estimated Economic Losses

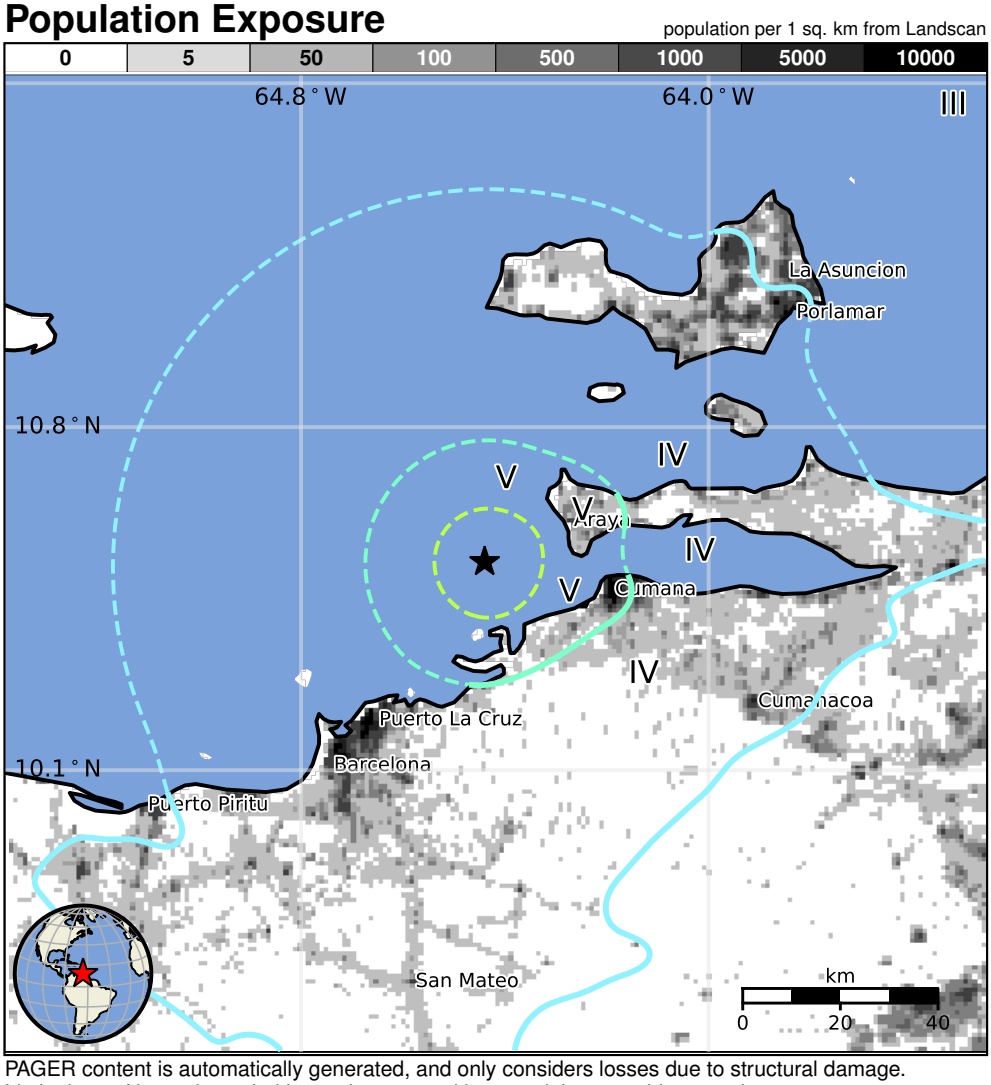



## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 359k* | 1,627k | 408k | 3k | 0 | 0 | 0 | 0 |
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure




## Structures

Overall, the population in this region resides in structures that are vulnerable to earthquake shaking, though resistant structures exist. The predominant vulnerable building types are mud wall and adobe block construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 1997-07-09 | 96 | 6.9 | VIII(8k) | 81 |
| 1967-07-30 | 316 | 6.6 | VIII(952k) | 240 |
| 1967-07-30 | 316 | 6.6 | VIII(952k) | 240 |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| VI | **Araya** | **<1k** |
| V | **Cumana** | **258k** |
| IV | **Barcelona** | **425k** |
| IV | **Puerto La Cruz** | **370k** |
| IV | Guanta | <1k |
| IV | Lecherias | <1k |
| IV | Boca del Rio | <1k |
| IV | **Cumanacoa** | **<1k** |
| IV | Juan Griego | 28k |
| IV | **Porlamar** | **87k** |
| IV | **La Asuncion** | **35k** |

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

**https://earthquake.usgs.gov/earthquakes/eventpage/us70005drn#pager**

**Event ID: us70005drn**